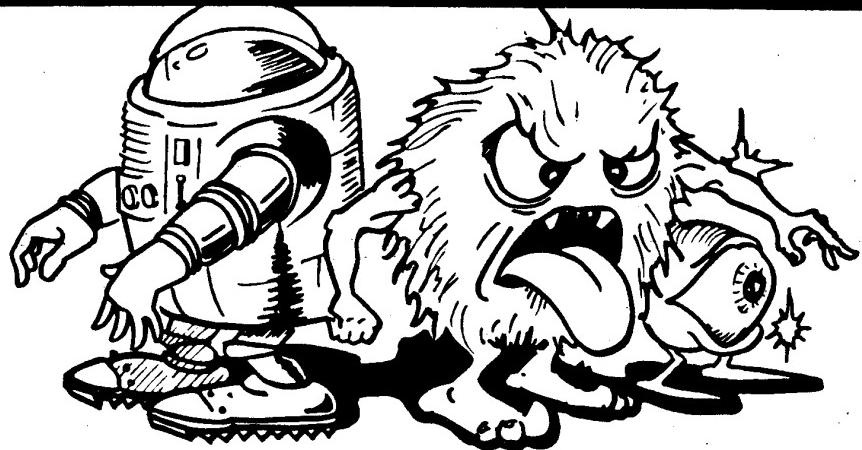


MÄZERBLÄZER



INSTALLATION & OPERATION

* Designed by Stern, Inc., Manufactured under license by Atari, Inc.

MB. TM—001 Rev. 3



ATARI IRELAND LTD.
TIPPERARY TOWN
IRELAND

062-52155.

Telex. 28165.

SECTION I:

GAME DESCRIPTION

The object of the game is to prevent the attacking aliens from working through the maze and entering your ship. Each time an alien enters your ship, you lose a life.

There are (14) different types of aliens in Mazer Blazer. Each level will have 1 or 2 different types of aliens that present the player with constantly changing levels of difficulty.

Shoot the aliens using the rapid fire Mazer Blaster. The farther from the ship you shoot the aliens, the higher the point value awarded. The screen is divided into four (4) colors. The colors determine the point value of the object. Blue = 400 points, Green = 300 points, Red = 200 points, and Black = 100 points.

The walls of the maze are in two (2) different colors; grey and orange. Orange walls are indestructable, while the grey walls can be shot away either by the nasties on the screen or your Mazer Blaster. Shooting the grey walls leaves gaps in the maze and makes it easier for the aliens to reach their ship, and lowers your wall bonus.

The Wall Bonus (indicated at the top of the screen) starts out at 2,000 points for the first level and increases by 1,000 points per level to a maximum of 13,000 points. Each time a section of the maze is destroyed, your wall bonus decreases by 200 points.

After each level is a Timed Bonus Rack. There are 8 aliens per bonus rack, each worth 500 points. Shoot the aliens as fast as possible for maximum bonus. The aliens seen in the bonus rack will be the alien encountered in the next maze level.

In every maze is the freeze target (located at the lower center of the screen). The freeze target, when hit, momentarily stops the movement of the aliens on the screen (time stopped is adjustable). The number of freezes the game starts with is adjustable from 1 to 4. (See Dip Switch Chart) Extra freezes awarded at Freeze Level (See Dip Switch Chart for Adjustment).

SECTION I: GAME DESCRIPTION (Cont'd)
Page -2-

DESCRIPTION OF ALIENS (In their order of appearance).

Tongue - Seeks the ship
Disc - Seeks the ship
Robot - Seeks the ship
Hopper - Hops over walls
Eyeball - Randomly blinks, making themselves almost invisible
Jack - Seeks the ship
Ram - Seeks the ship
Snake - Seeks the ship
Looper - Small target which is constantly spinning
Drill - Drills into ground and comes up in a different part of the maze.
Shield - Opens and closes. When the shield is closed, it can't be hit.
Bridger - Builds bridges that it and other aliens go under. When under bridges, aliens can't be shot.

SPECIAL NUISANCE ALIENS

Jaws - Appear randomly in different levels. The jaws eat walls and decrease your wall bonus.
Gunners - Appear randomly in different levels. The gunners shoot walls and decrease your wall bonus.

SECTION II:

GAME ADJUSTMENTS

All dip switches used for game adjustments are located on the ZPU-2000 board. The ZPU-2000 board is the bottom board in the card cage.

ZPU-2000 DIP SWITCH DESIGNATION

4	1	NO. OF FREEZES (1, 2, 3, 4)
5	2	
6	3	KNOCKER OFF * ON/OFF
7	4	
8	5	
9	6	
10	7	
11	8	

*TO TURN KNOCKER OFF, DIP SWITCH SHOULD BE IN "ON" POSITION

12	1	SERVICE INDEX	ON/OFF
13	2	SWITCH TEST	ON/OFF
14	3	FREE PLAY	ON/OFF
15	4	PLAYER IMMORTALITY	ON/OFF
16	5	SUPER SHOT	ON/OFF
17	6	ATTRACT SOUND OFF	ON/OFF
18	7		
19	8		

20	1	
21	2	
22	3	LEFT COIN CHUTE
23	4	
24	5	
25	6	
26	7	RIGHT COIN CHUTE
27	8	

28	1	NUMBER OF LIVES PER GAME (3, 4, 5, 6)
29	2	
30	3	FREEZE TIME (1.5, 2.0, 2.5, 3.0 SECONDS)
31	4	
32	5	NUMBER OF POINTS FOR EXTRA FREEZE & FIRST LIFE (20K, 25K, 30K, 35K)
33	6	
34	7	NUMBER OF POINTS FOR EXTRA LIFE OTHER THAN FIRST. (40K, 50K, 60K, 70K)
35	8	

NUMBER OF FREEZES:

NUMBER	SWITCH 4	SWITCH 5
1	OFF	OFF
2	ON	OFF
3	OFF	ON
4	ON	ON

GUN KNOCKER

	DIP SWITCH 6
ON	OFF
OFF	ON

FREE PLAY

	DIP SWITCH 14
YES	ON
NO	OFF

PLAYER IMMORTALITY

	DIP SWITCH 15
YES	ON
NO	OFF

Used for test purposes, in this mode your player is never destroyed.

SUPER SHOT

	DIP SWITCH 16
YES	ON
NO	OFF

Used for test purposes, in this mode pushing the Player One button clears all aliens visible on the screen at the time. More than one push may be needed to clear all aliens from a level.

<u>ATTRACT MODE SOUND</u>	<u>OFF</u>
ON	OFF
OFF	ON

<u>DIP SWITCH 17</u>
OFF
ON

<u>NUMBER OF LIVES PER GAME:</u>	<u>LIVES</u>	<u>SWITCH 28</u>	<u>SWITCH 29</u>
	3	OFF	OFF
	4	ON	OFF
	5	OFF	ON
	6	ON	ON

<u>FREEZE TIME:</u>	<u>TIME</u>	<u>SWITCH 30</u>	<u>SWITCH 31</u>
	1.5	OFF	OFF
	2.0	ON	OFF
	2.5	OFF	ON
	3.0	ON	ON

NUMBER OF POINTS FOR EXTRA FREEZE AND FIRST LIFE:

<u>POINTS</u>	<u>SWITCH 32</u>	<u>SWITCH 33</u>
20K	OFF	OFF
25K	ON	OFF
30K	OFF	ON
35K	ON	ON

This switch setting awards extra freezes at the point value set and multiplies thereof. This switch setting also awards First Extra Life Only. (To set the next level, see Switch Settings Below).

NUMBER OF POINTS FOR EXTRA LIFE OTHER THAN FIRST:

<u>POINTS</u>	<u>SWITCH 34</u>	<u>SWITCH 35</u>
40K	OFF	OFF
50K	ON	OFF
60K	OFF	ON
70K	ON	ON

This switch setting awards subsequent lives. It awards extra lives by adding the point value set to the Previous Extra Life Value. Example: First Life set at 20,000 points, Second Life set at 50,000 points. Then the first life awarded will be at 20,000 points, the second life awarded at 70,000 points, the third at 120,000 points, etc.

SECTION II: GAME ADJUSTMENTS (Cont'd)
 Page -4-

COIN SWITCH SETTINGS:

COIN		SWITCHES			
LEFT CHUTE	CHUTE	23	22	21	20
RIGHT CHUTE	CHUTE	27	26	25	24

				CREDITS	COIN
OFF	OFF	OFF	OFF	. . . . 1	
OFF	OFF	OFF	ON	. . . . 2	
OFF	OFF	ON	OFF	. . . . 3	
OFF	OFF	ON	ON	. . . . 4	
OFF	ON	OFF	OFF	. . . . 5	. . . 1
OFF	ON	OFF	ON	. . . . 6	
OFF	ON	ON	OFF	. . . . 7	
OFF	ON	ON	ON	. . . . 10	
ON	OFF	OFF	OFF	. . . . 14	

COIN		SWITCHES			
LEFT CHUTE	CHUTE	23	22	21	20
RIGHT CHUTE	CHUTE	27	26	25	24

SEQUENCE OF
 CREDITS PER COIN

				CREDITS	COIN	1	2	3	4
ON	OFF	OFF	ON	. . . . 1	. . . 2	. . 0..1			
ON	OFF	ON	OFF	. . . . 3	. . . 2	. . 1..2			
ON	OFF	ON	ON	. . . . 5	. . . 2	. . 0..5			
ON	ON	OFF	OFF	. . . . 7	. . . 2	. . 0..7			
ON	ON	OFF	ON	. . . . 3	. . . 4	. . 0..1..0..2			
ON	ON	ON	OFF	. . . . 5	. . . 4	. . 1..1..1..2			
ON	ON	ON	ON	. . . . 7	. . . 4	. . 1..2..1..3			

IF BOTH COIN CHUTES ARE ADJUSTED THE SAME FOR MULTIPLE COINS, CREDITS WILL INCREASE AS IF DROPPED IN SAME CHUTE.

SECTION III: SERVICE MODES

Your game is using the new Color Frame Buffer (C.F.B.) Hardware System, one of more advanced systems available in the business today.

The CFB provides three service modes:

- (1) Power on self test for each board
- (2) Service Index
- (3) Switch Test

I. POWER ON SELF TEST:

There are three boards in the C.F.B. System:

- 1) ZPU-2000
- 2) CFB-1000
- 3) VSB-2000

Each board has its own test L.E.D. and each board goes through its own self test on power-up. Each flash checks a particular section of the board. The L.E.D. flashes upon completion of a test.

Listed below, by board, is the sequence of flashes of the L.E.D. and what section of the board is being checked.

ZPU-2000:

9 Flashes:

```
1st = Z80 microprocessor
2nd = Rom 0 position 1H
3rd = Rom 1 position 2H
4th = Rom 2 position 3H
5th = Rom 3 position 4H
6th = Scratch Ram    6C
7th = Bookkeeping    6F
8th = VSB/ZPU Port Communication
      ZPU Board must be able to "talk" and "listen" to the VSB
      Board to complete this test.
9th = Shared Ram Test
      Chip located position 3F on CFB Board. ZPU Board must be
      able to "talk" to the CFB Board to complete this test.
```

CFB-1000:

8 Flashes:

```
1st = Z80 Microprocessor
2nd = Rom 0 Program Prom 7F
3rd = Rom 2 Pattern Prom 8K
4th = Rom 3 Pattern Prom 10K
5th = Rom 4 Pattern Prom 11K
6th = Parameter Ram 13K
7th = Custom Video Controller
8th = Shared Ram Position 3F
      CFB Board must be able to "talk" and "listen" to the ZPU
      Board to complete this test.
```

VSB-2000:

6 Flashes:

```
1st = Z80 Microprocessor
2nd = Rom 0 Program Prom (2D)
3rd = Rom 1 Program Prom (4D)
4th = VSB/ZPU Port Communication
      VSB Board must be able to "talk" and "listen" to ZPU Board
      to complete this test.
5th = Scratch Ram L.S.N. (4E)
6th = Scratch Ram M.S.N. (5E)
```

II. SERVICE INDEX:

Access into the Service Index can be made by turning Switch No. 12 of the ZPU Board on OR by holding the Service Index Interlock Switch closed during power-up. (Service Index Interlock Switch is located in upper right hand corner of the drawer by the power transformer).

<u>SERVICE INDEX</u>
ON
OFF

<u>DIP 12</u>
ON
OFF

The service index displays seven (7) categories on the screen, that provide access to Bookkeeping Information, Game and Coin Adjustment Settings, and Various Diagnostic Tests.

A. The categories in the service index are listed below:

- 01 Bookkeeping
- 02 Game Adjustment
- 03 Credit/Coin Adjustment
- 04 Monitor Test
- 05 Sound Test
- 06 Gun Adjustment Mode
- 07 Game Play Statistics

B. Selecting a category:

To select a category you:

- (1) push the Player One button to move the Red Bar up the index.
- (2) push the Player Two button to move the Red Bar down the index.
- (3) To select a category push the Fire Button on the gun.
- (4) To exit from a category, push the Fire Button on the gun.

C. Description of Categories:

01 Bookkeeping: The Bookkeeping category contains information on:

- (1) Total plays
- (2) Coins through the left coin chute.
- (3) Coins through the right coin chute.
- (4) Total seconds played
- (5) Longest game in seconds
- (6) Shortest game in seconds
- (7) Highest game score
- (8) Highest rack played

To reset the categories back to zero, push switch number two (2) on the ZPU-2000 Board (See ZPU illustration, Sec. 4). This resets all categories except number 7, highest game score, this is handled separately.

NOTE: Number 6, shortest game in seconds is reset to 99.

HIGHEST GAME SCORE:

The CFB System displays twenty (20) high scores in two different categories; All Time and Today.

Scores in the Today column are reset every time the machine is turned off.

Scores in the All Time column are retained in memory and are not reset when the machine is turned off.

Scores in the All Time Column, can be cleared One At A Time by pushing Switch Number One on the ZPU-200 Board (See ZPU Illustration Sec. 4). Each push of Switch One clears the highest score of the group and all other scores move up. To clear the entire column push Switch One, ten (10) times.

02 Game Adjustments:

Displays how a particular adjustment has been set, the dip switches controlling that function, and the status of those switches.

03 Credit/Coin Adjustments:

Show what Coin/Credit combination has been set for both the Left and Right Coin Chutes, and which switches control each chute.

04 Monitor Test:

Displays a Red, Blue, Green or Crosshatch pattern on the screen for monitor adjustments.

To change screens, push the Player One button.

05 Sound Test:

Allows you to test each sound of the game individually. To do this use either the Player One or Player Two buttons to call up the number of the sound (See Chart) you want to test. Pushing the Fire Button on the gun creates the sound.

To exit the Sound Test, call up position number 23 (Exit Sound Test) and push the Fire Button on the gun.

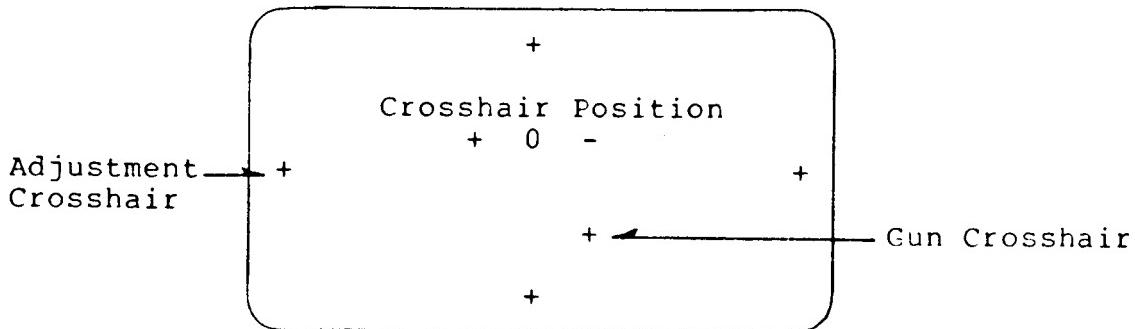
LIST OF GAME SOUNDS:

01	N/U
02	Credit
03	Game Start
04	Extra Life
05	Saucer lift-off
06	Bonus score add sound
07	Saucer flying
08	Saucer Zapping life
09	Game over
10	Aliens coming onto screen
11	Aliens entering ship
12	
13	Gun sound
14	Alien hit sound
15	Wall hit sound
16	N/U
17	Saucer exploding
18	Freeze target hit sound
19	Thaw out sound
20	Typing sound
21	Title page, sound of yellow line going through letters.
22	Title page, sound of yellow line when through letters.
23	Exit sound test

06 Gun Adjustment Mode:

This mode allows you to adjust the position of the shot on the screen.

CAUTION: Right, Left, Top, Bottom is the proper adjustment sequence. It must be followed for proper adjustment.



To adjust the gun shot, move the gun crosshair to the right adjustment crosshair first.

Using the adjustment tool, included in the service envelope, adjust Pot R1 on the UIB Board (located behind the gun access panel) (For location and identification of UIB trim pots, see UIB illustration in Sec. IV).

Adjust the pot until the 0 of the crosshair position turns from green to red. For proper final adjustment, the 0 of the crosshair position should be red, and the + and - should be green.

To complete the gun adjustment, adjust;

Left, Pot R2 on UIB Board
Top, Pot R3 on UIB Board
Bottom, Pot R4 on UIB Board

in that order.

NOTE: Only one of the adjustment crosshairs is on the screen at a time. To move the crosshair to the next position push the Player One button.

To exit test, push the Fire Button on the gun.

07 Game Play Statistics:

This category contains information on:

(1) Range of scores:

This page shows the range of scores achieved in 10K points increments. It displays values from 0 to 140K points. It also shows how many times each level was reached.

(2) Range of times:

This page shows the range of time played, in minutes. Times shown are from 0 to 14 minutes and increase at one minute intervals.

(3) Range of racks:

This page shows the number of times the highest rack per game was reached.

Pushing the Player One Button changes the display to the next page.

Pushing the Player Two Button clears the page being displayed back to zero.

SECTION III

SWITCH TEST

The switch test can be turned on two different ways:

- (1) By turning switch number 13 of the ZPU Board on and pushing the Reset Button (SW3).
- (2) Holding the Player One start button closed during power-up.

0 = Switch open

1 = Switch closed

<u>SWITCH</u>	<u>STROBE</u>	<u>BIT</u>
Player One	5	2
Player Two	5	3
Fire Button	5	4
Right Coin Switch	5	0
Left Coin Switch	5	1
ZPU Switch 1	0	6
ZPU Switch 2	0	7
Dip Switch 4	4	0
Dip Switch 5	4	1
Dip Switch 6	4	2
Dip Switch 7	4	3
Dip Switch 8	4	4
Dip Switch 9	4	5
Dip Switch 10	4	6
Dip Switch 11	4	7
Dip Switch 12	3	0
Dip Switch 13	3	1
Dip Switch 14	3	2
Dip Switch 15	3	3
Dip Switch 16	3	4
Dip Switch 17	3	5
Dip Switch 18	3	6
Dip Switch 19	3	7
Dip Switch 20	2	0
Dip Switch 21	2	1
Dip Switch 22	2	2
Dip Switch 23	2	3
Dip Switch 24	2	4
Dip Switch 25	2	5
Dip Switch 26	2	6
Dip Switch 27	2	7
Dip Switch 28	1	0
Dip Switch 29	1	1
Dip Switch 30	1	2
Dip Switch 31	1	3
Dip Switch 32	1	4
Dip Switch 33	1	5
Dip Switch 34	1	6
Dip Switch 35	1	7

Horizontal movement of gun is Strobe 6, Bits 0 - 7.
 Movement is from 0000 0000 to 1111 1111

Vertical movement of gun is Strobe 7, Bits 0 - 7
 Movement is from 0000 0000 to 1111 1111.

M-A-Z-E-R B-LA-Z-E-R

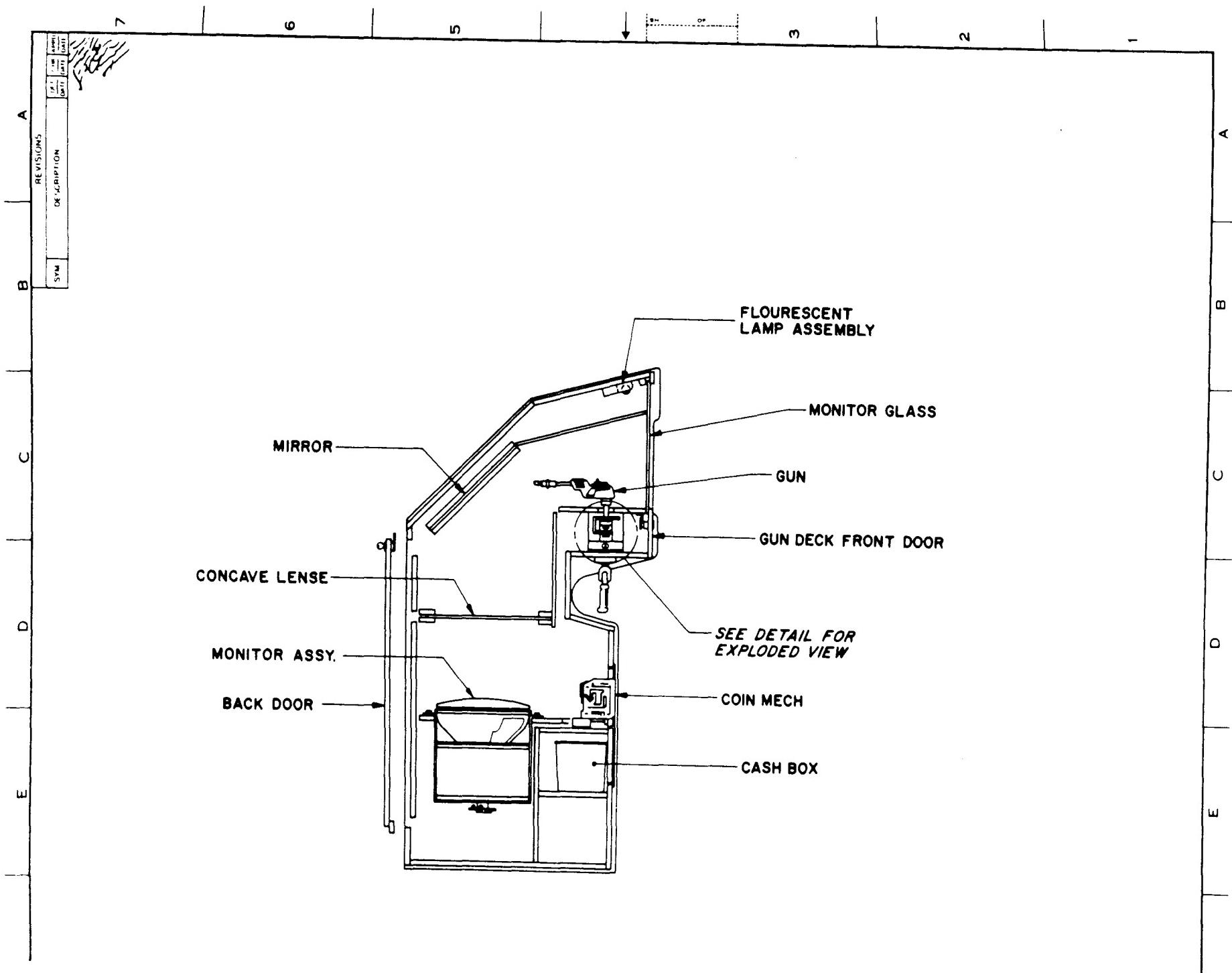


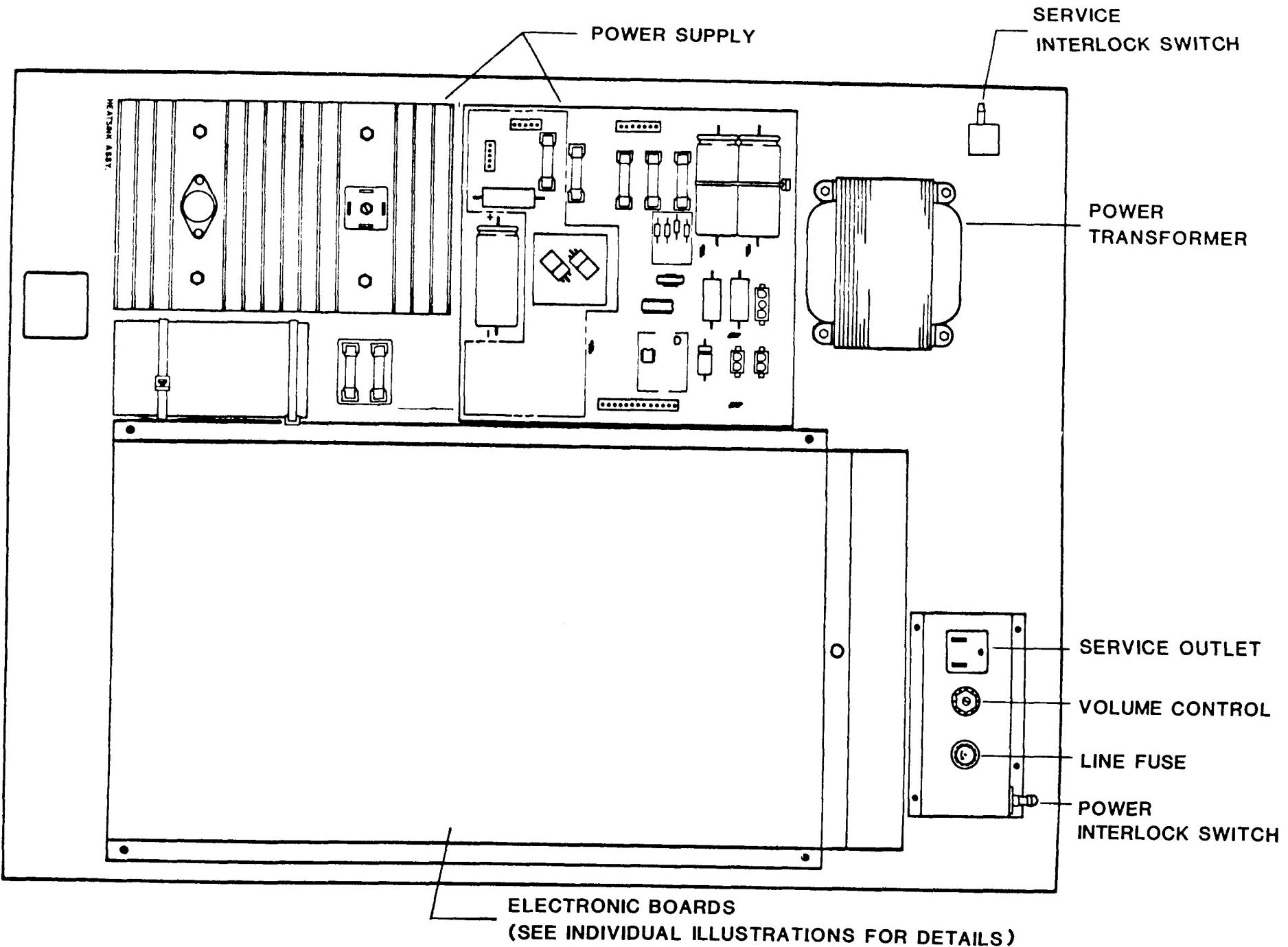
NOTE
This staple temporarily holds
the schematic package together.
Remove the staple before using
these schematics.

Schematic Package Supplement

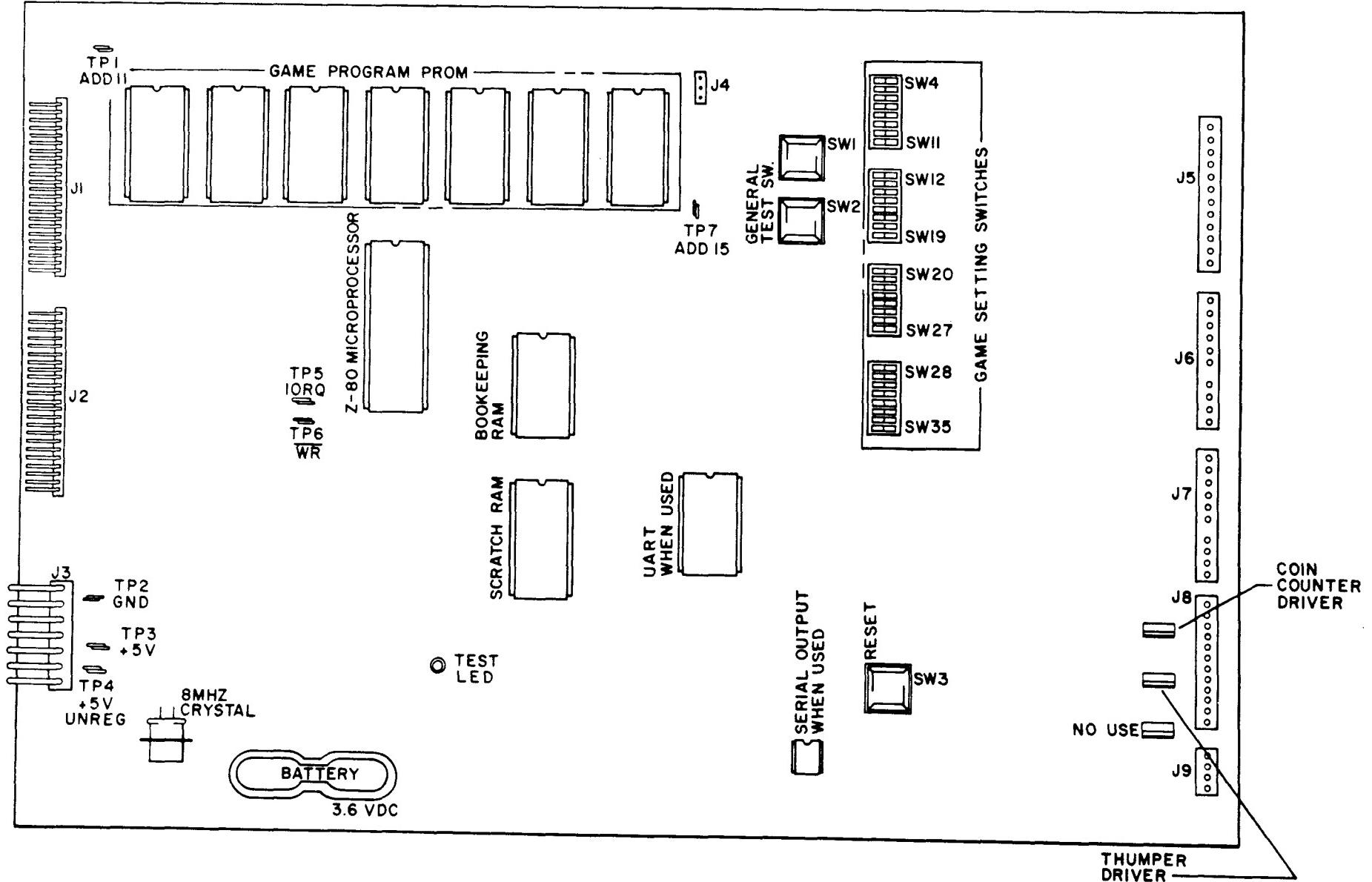
ATARI INC., 1983

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1st Printing

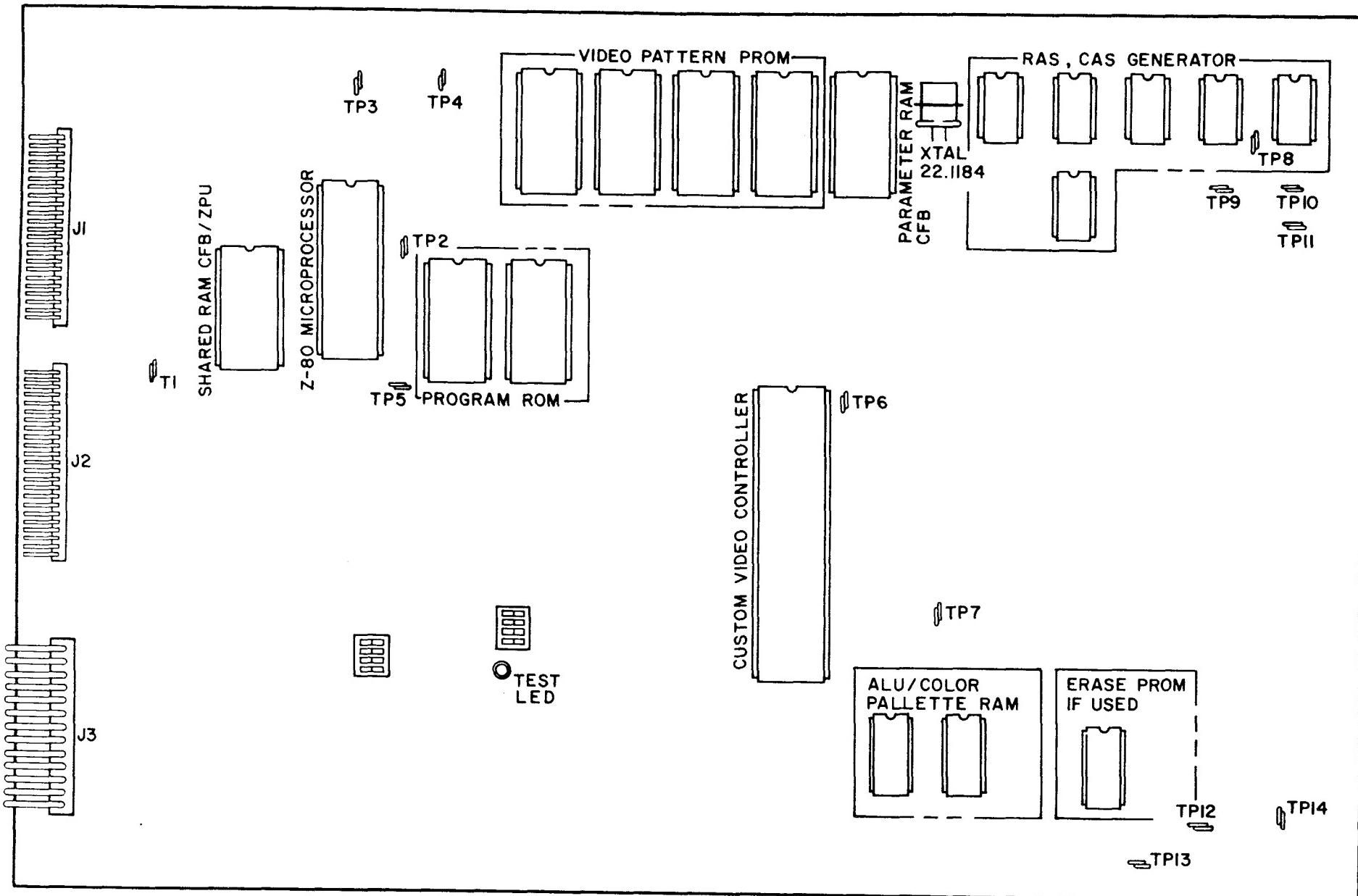




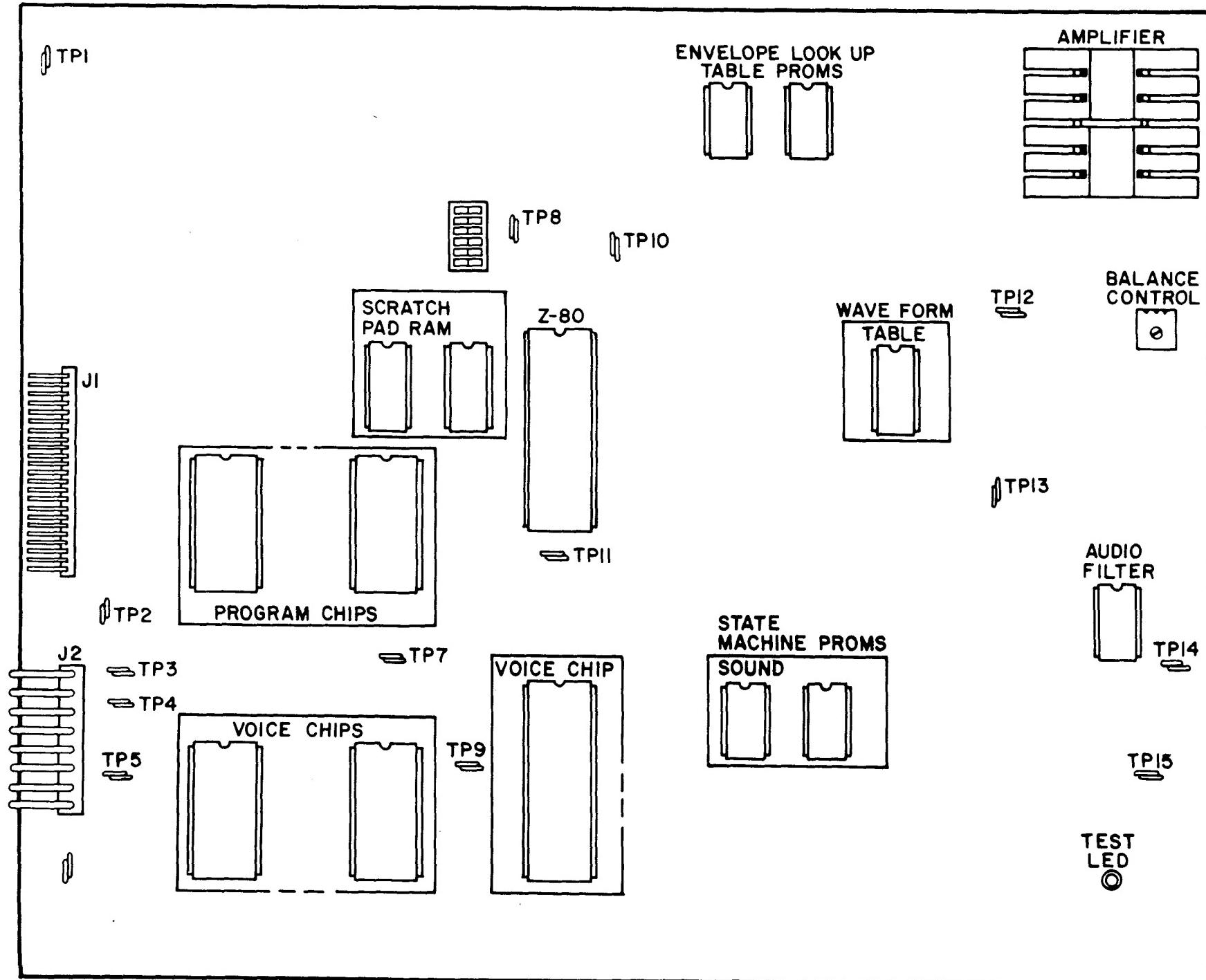
ZPU P.C.B. BOARD



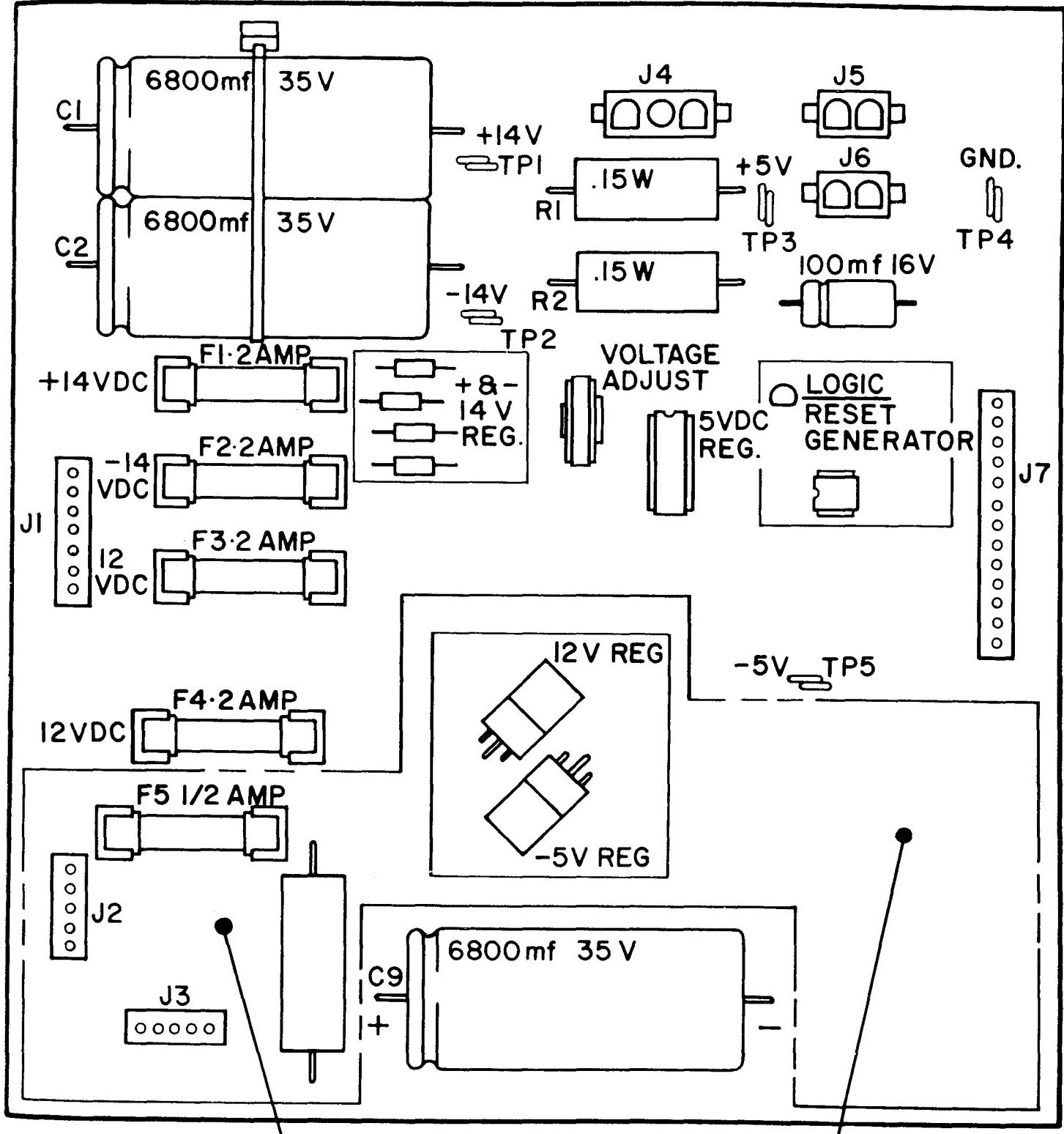
CFB-1000 P.C. BOARD



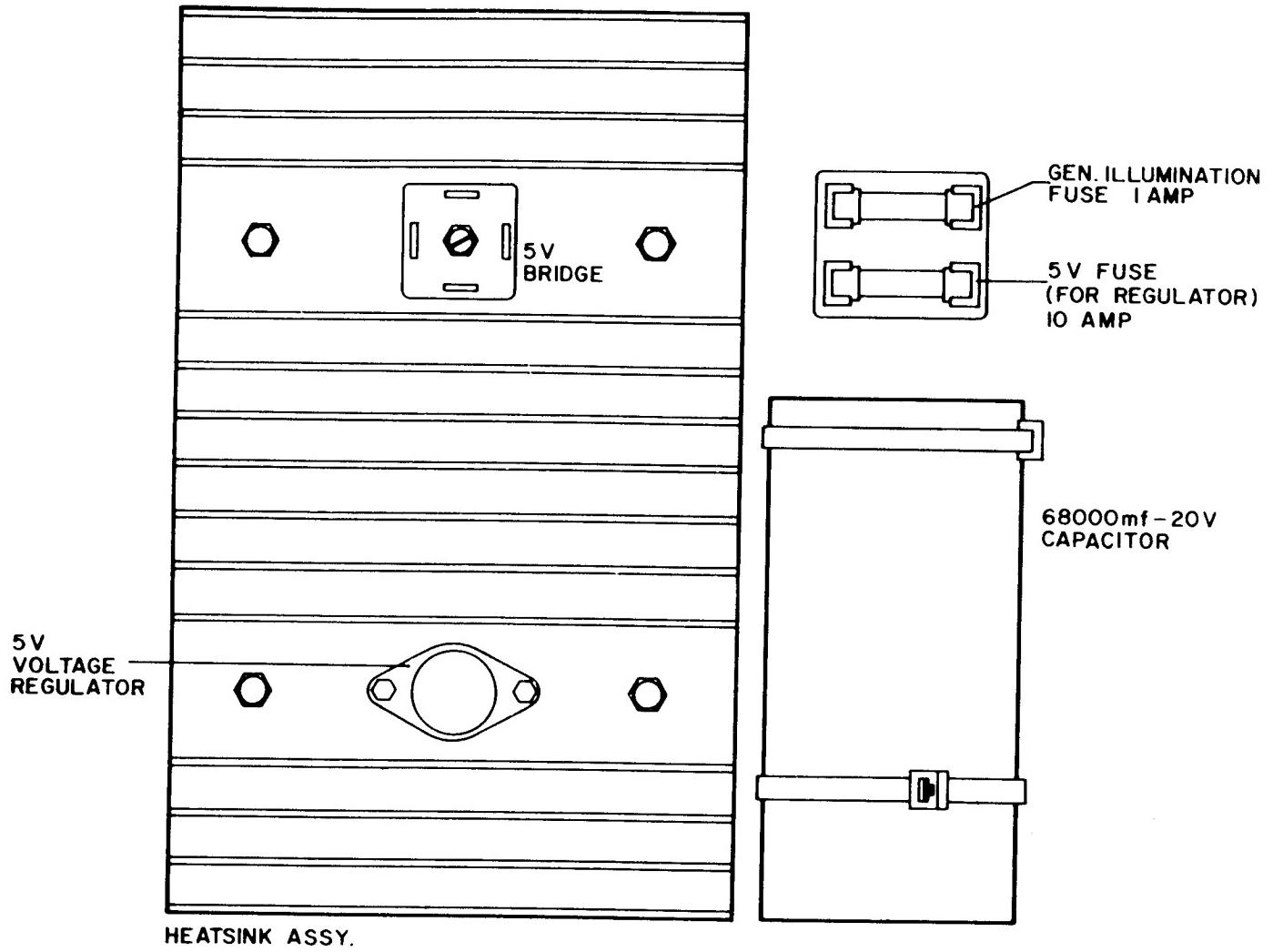
VSB-2000 P.C.B.

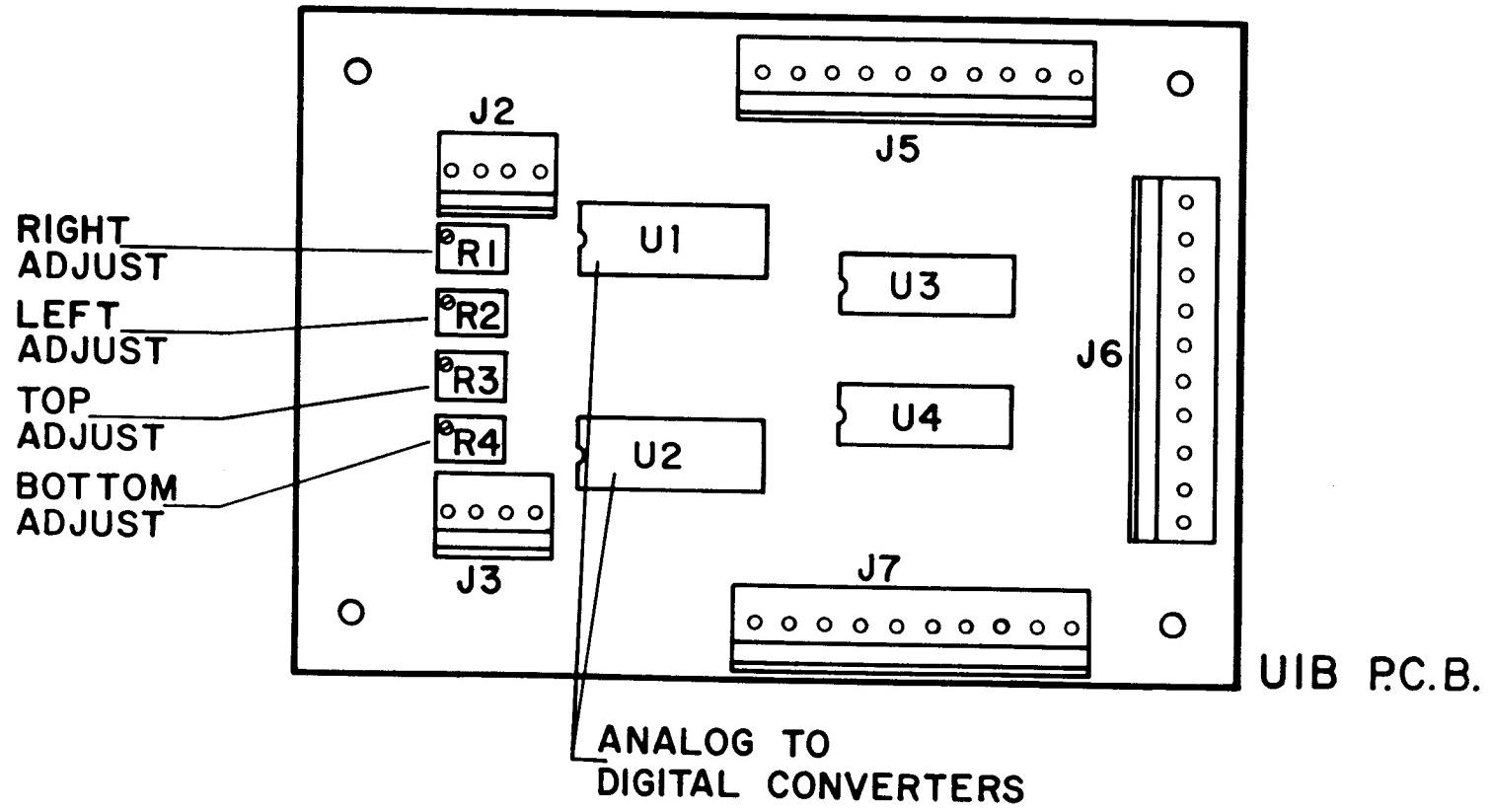


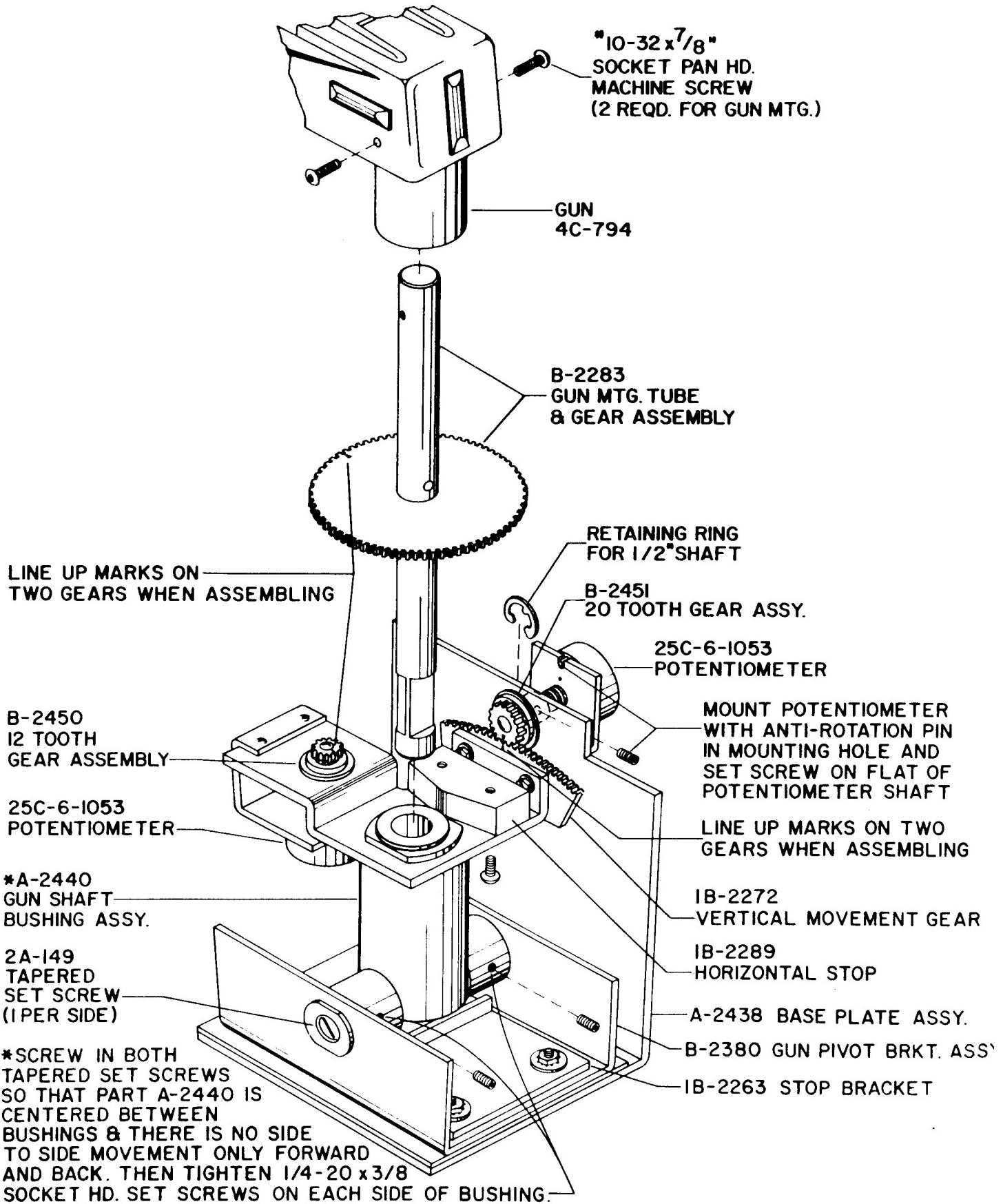
PS-1400 P.C. BOARD

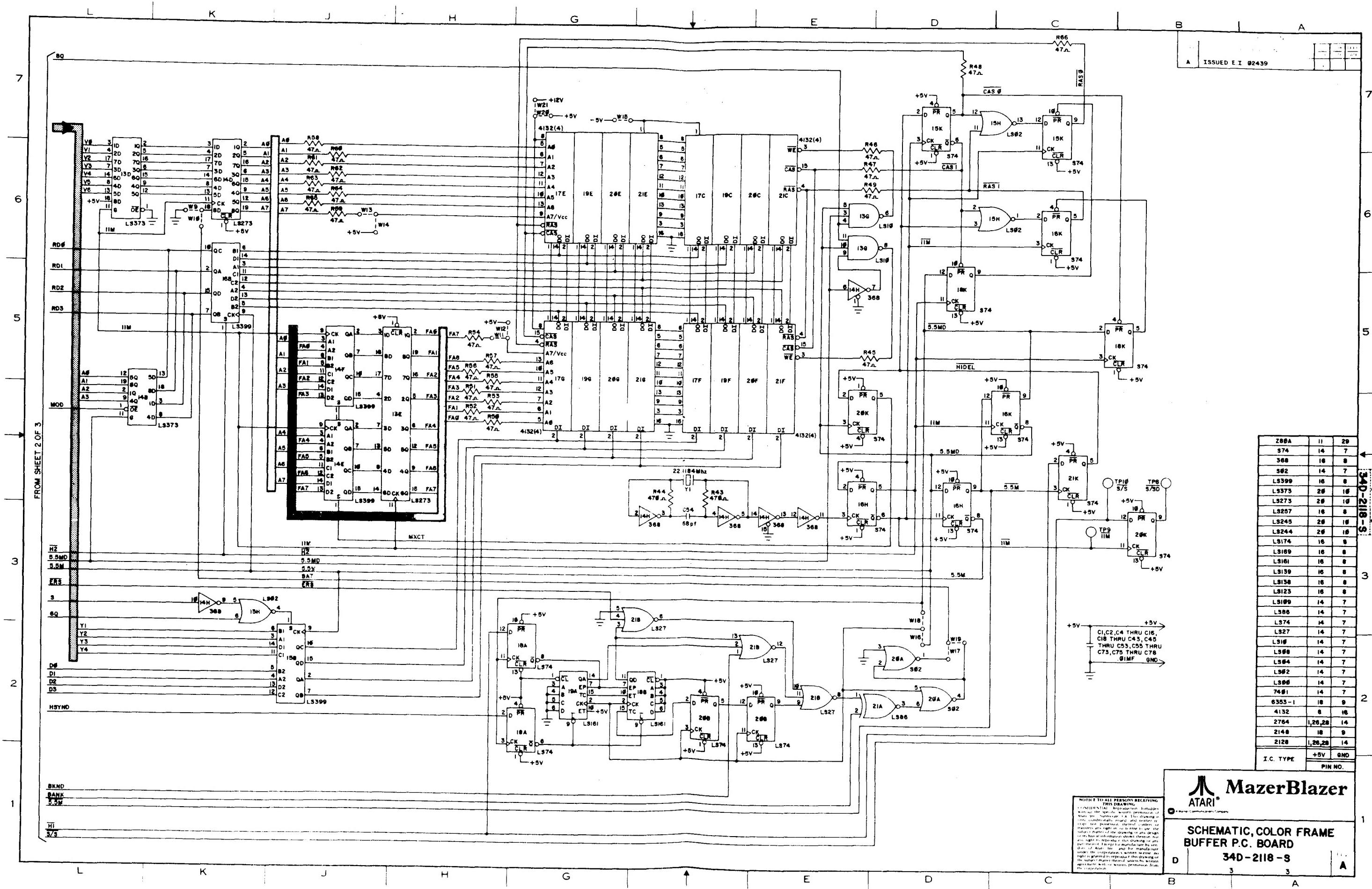


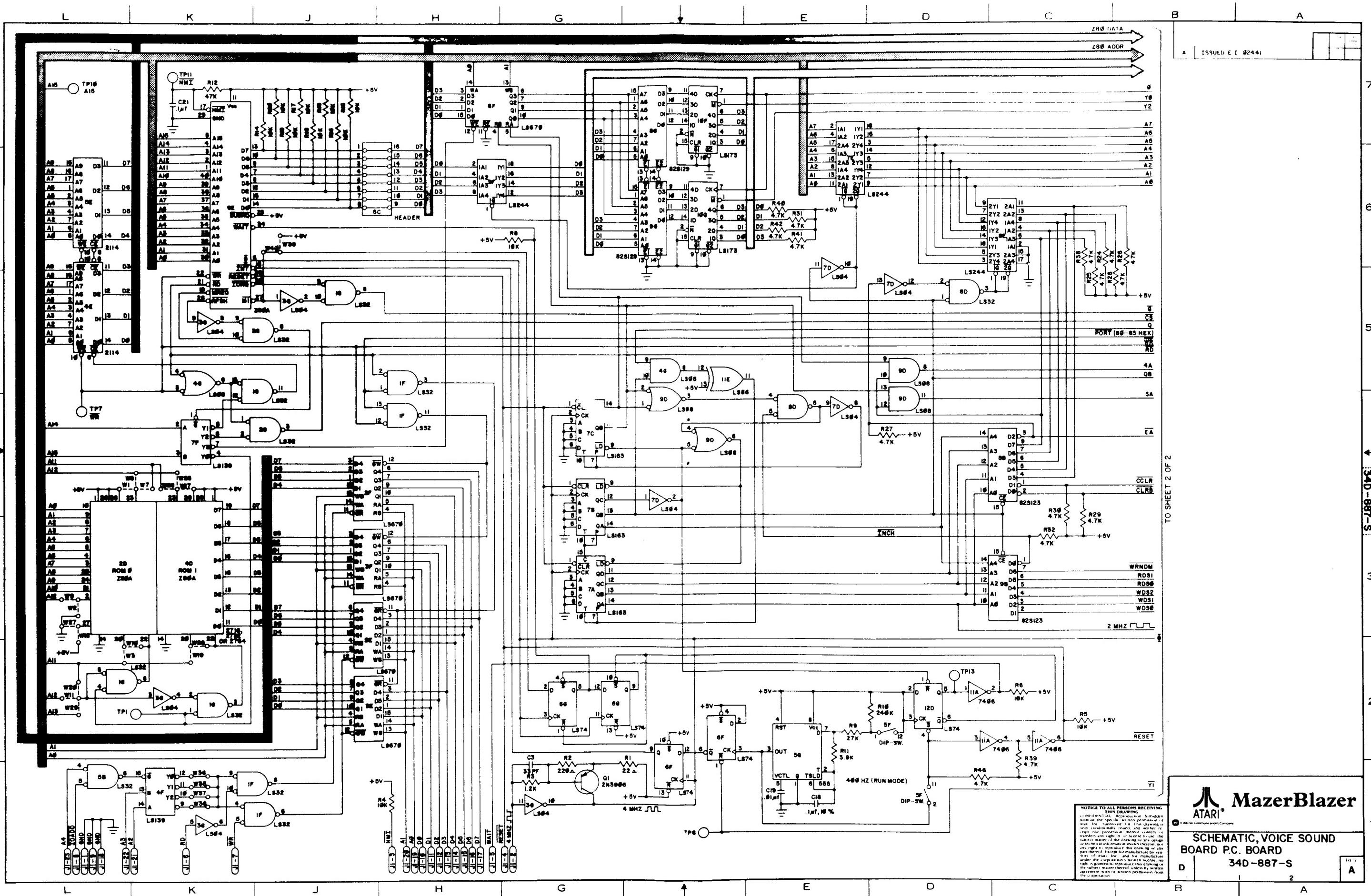
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NOT USED FOR MAZER BLAZER

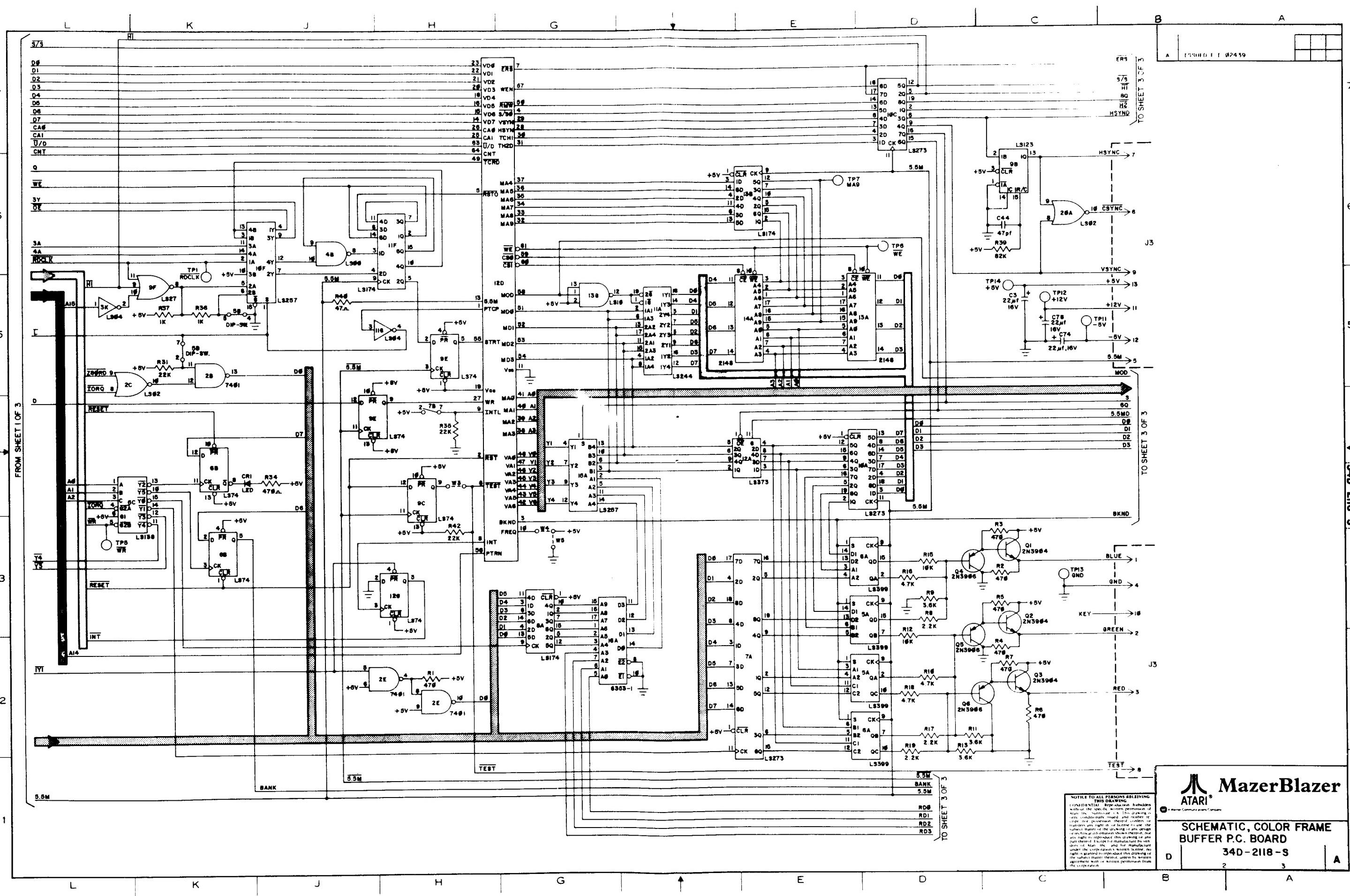


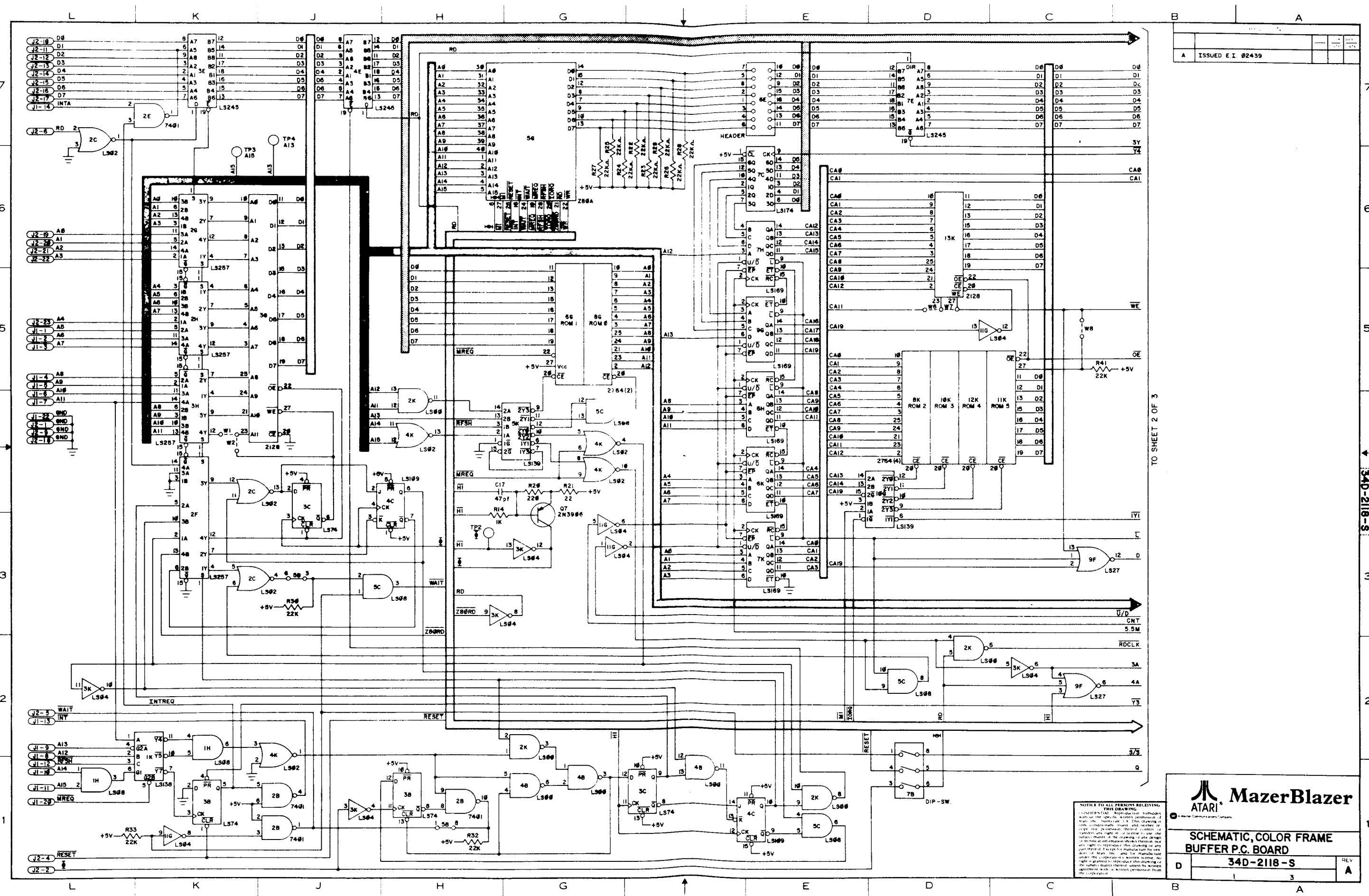


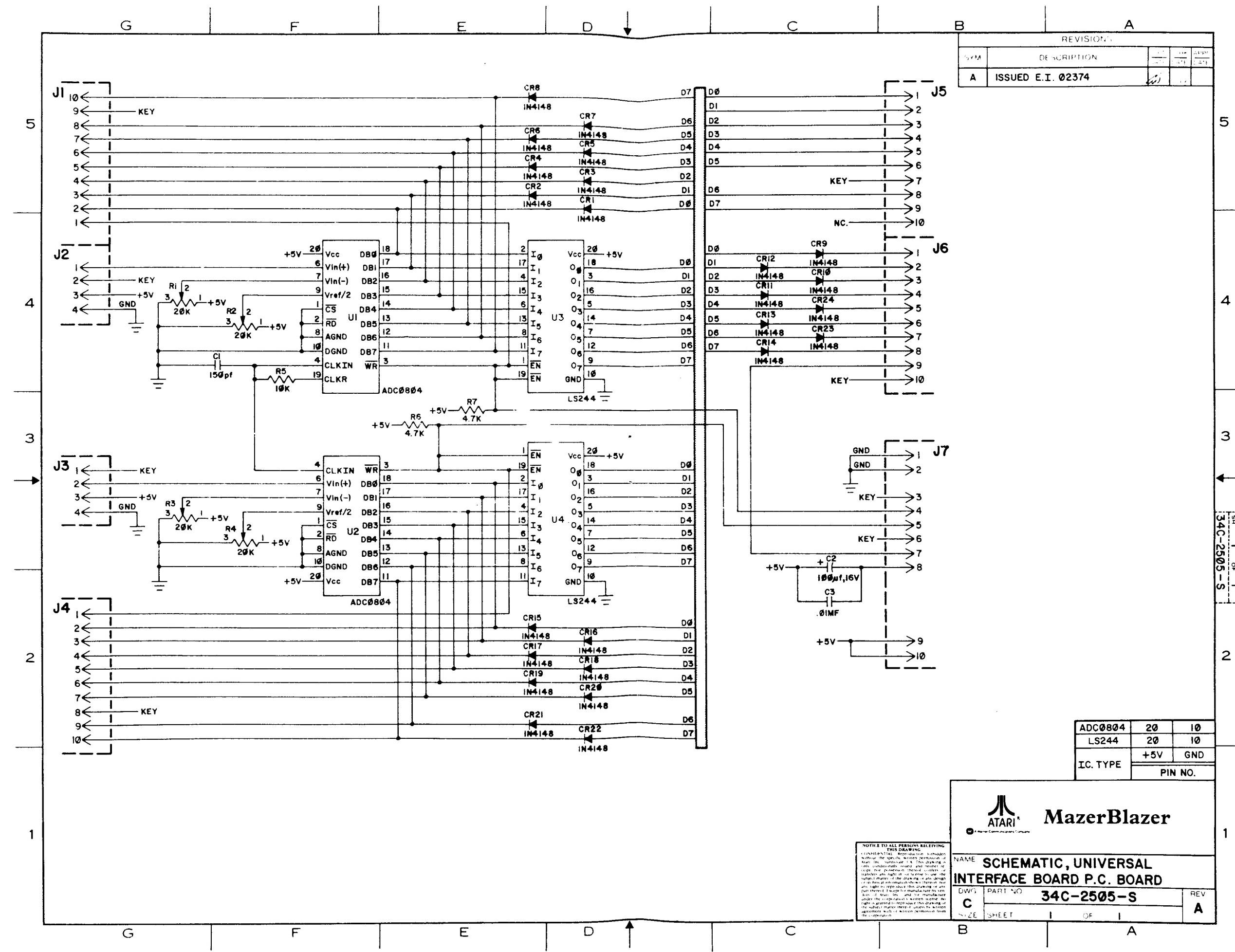


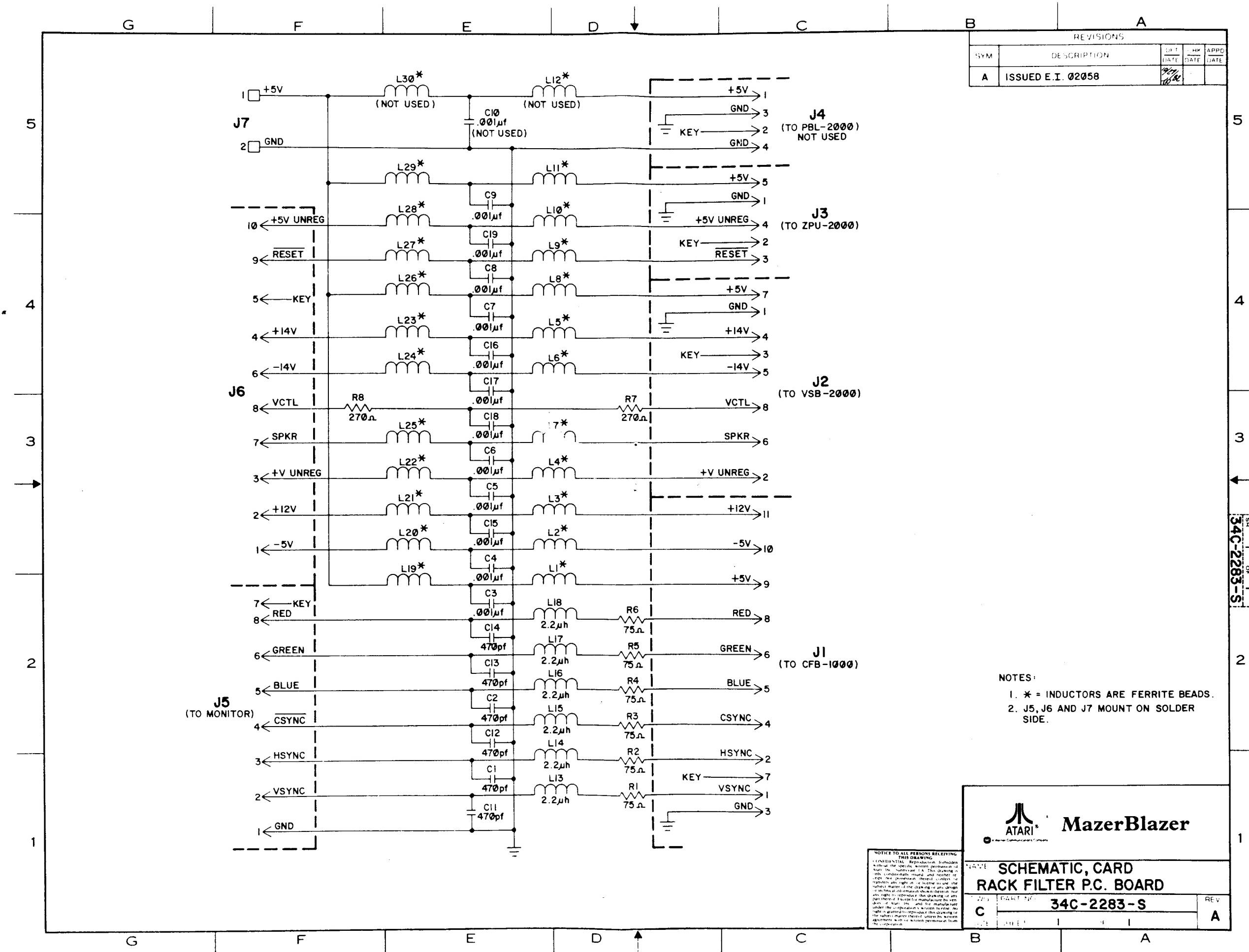


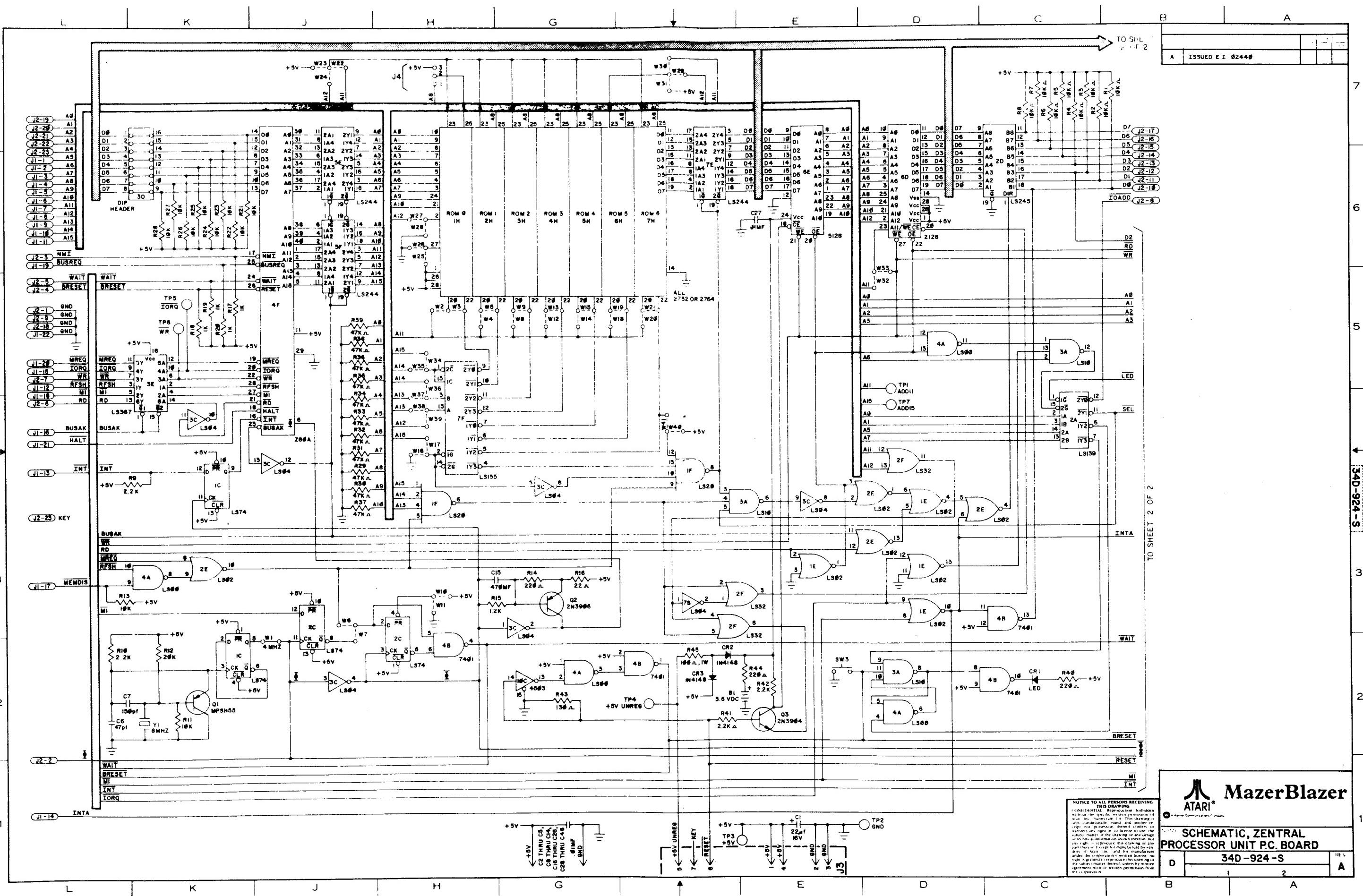


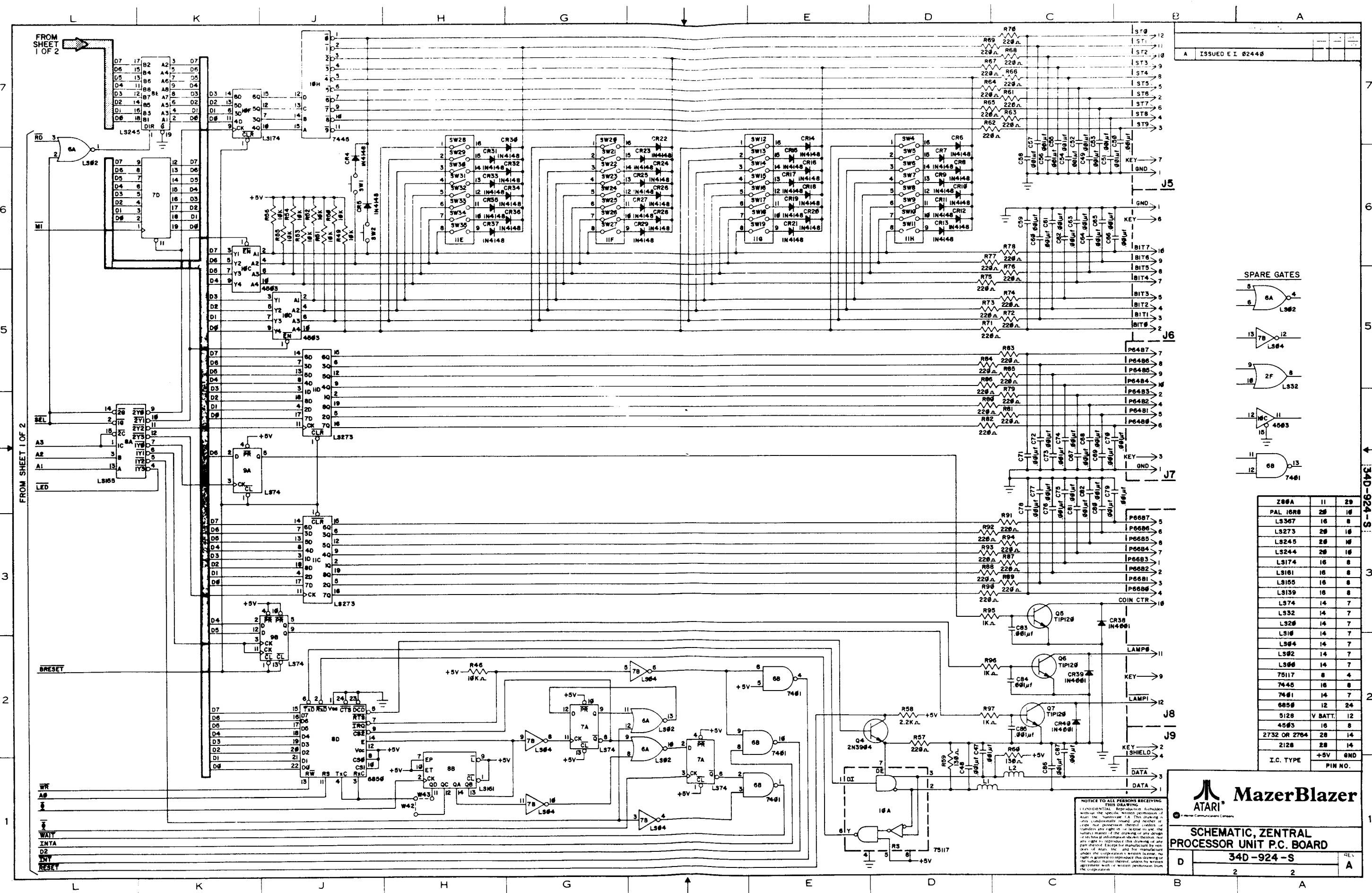


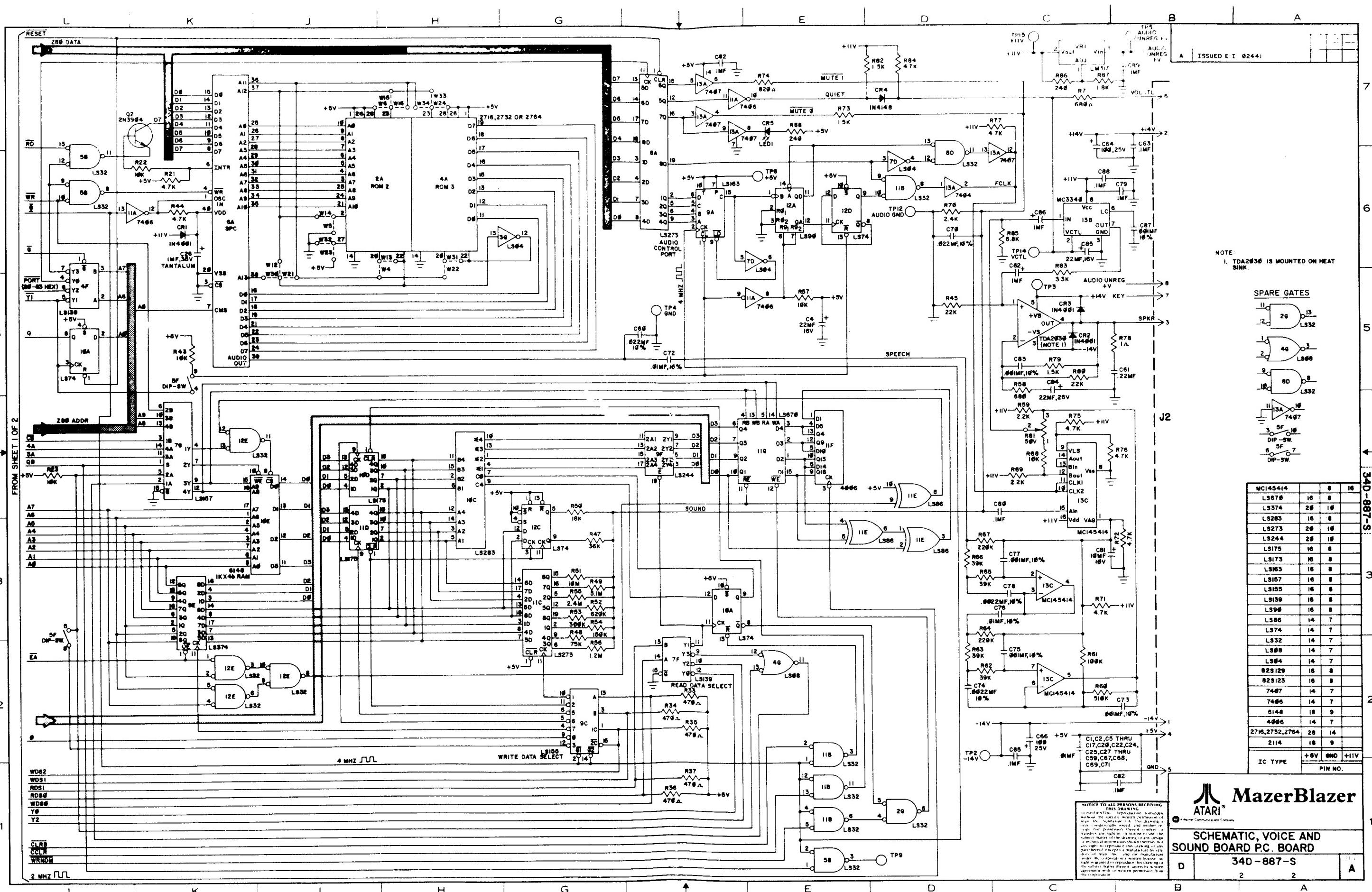


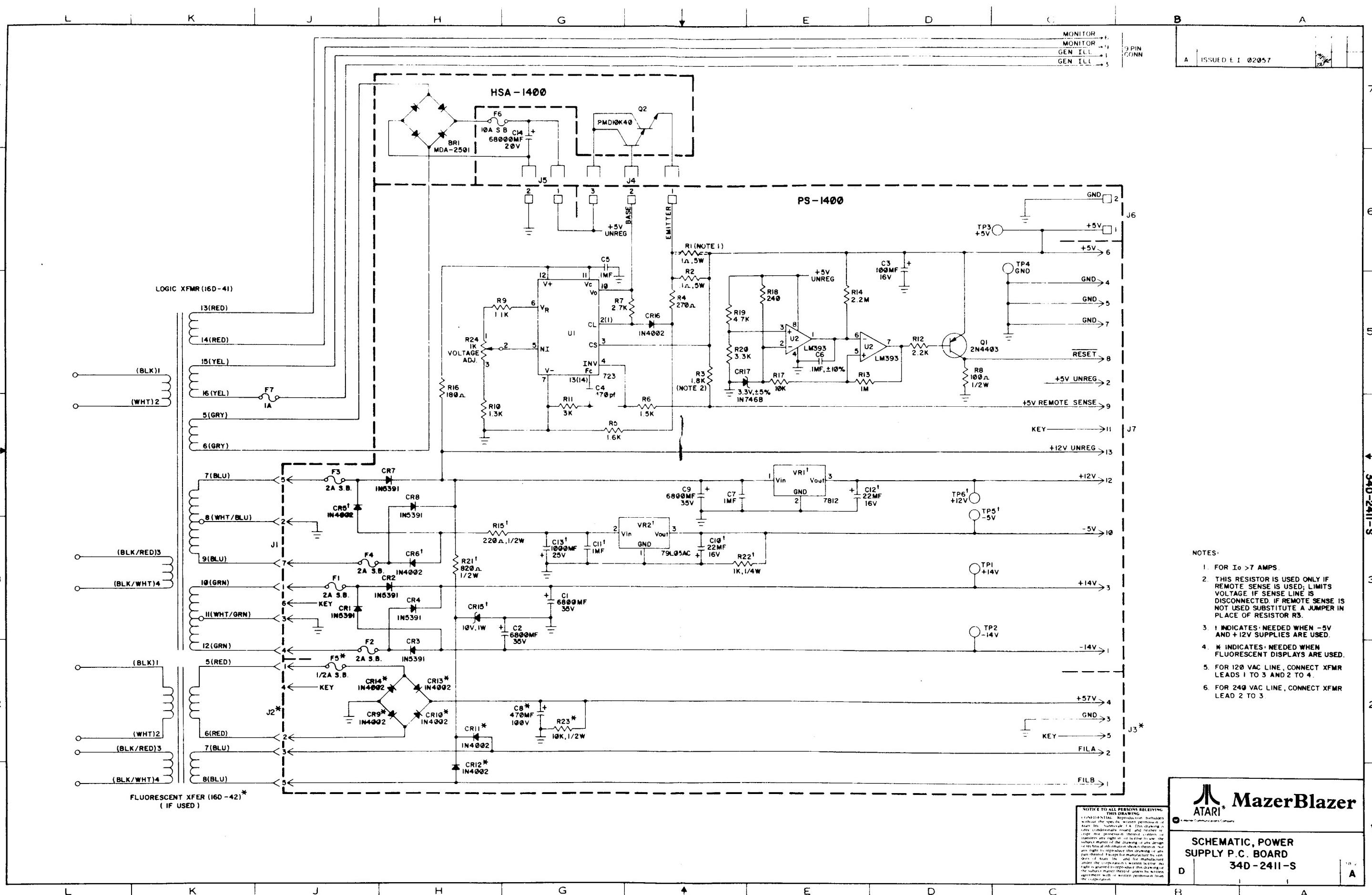








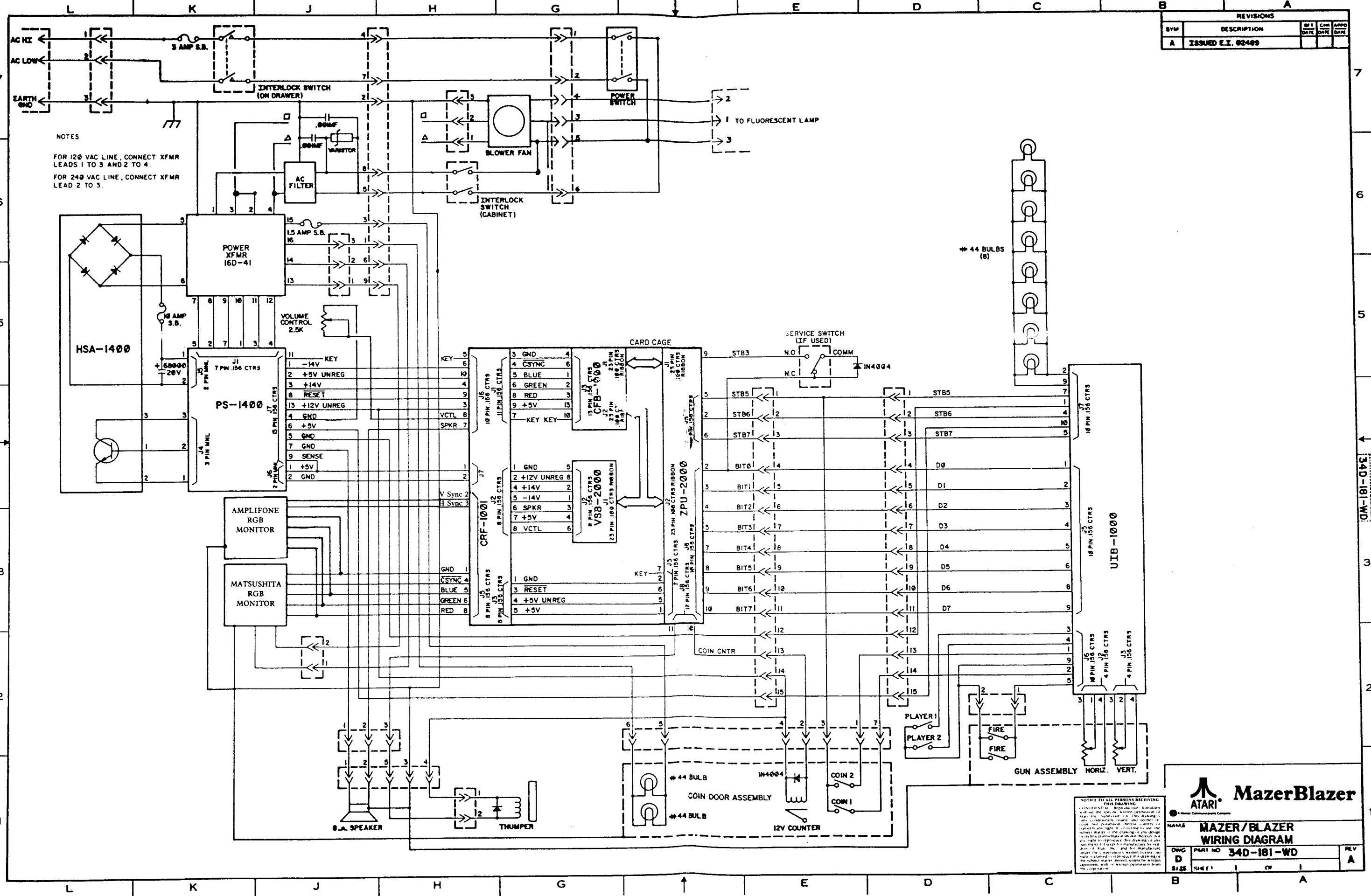




ATARI® MazerBlazer

**SCHEMATIC, POWER
SUPPLY P.C. BOARD
34D-2411-S**

REVISED			
SYM	DESCRIPTION	REV	DATE
A	ISSUED E.I. 62489		



ATARI® MazerBlazer
A Home Computer Company

NAME: MAZER/BLAZER
WIRING DIAGRAM

DWG NO. 34D-181-WD

SIZE 1 OF 1

REV A

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